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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,065	08/21/2003	Kenichi Yokouchi	P/2699-30	6981

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EXAMINER	
MACARTHUR, SYLVIA	
ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
04/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/645,065	YOKOUCHI ET AL.	
	Examiner	Art Unit	
	Sylvia R. MacArthur	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,9,10,12-30 and 62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,9,10,12-30 and 62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/8/2008 has been entered.

2. The examiner will grant the rejoinder of the previously withdrawn claims. However, it is noted that the prior art JP 2002-246364 and JP 2002-75953 read on the elected claims.

Claim Rejections - 35 USC § 102

3. Claims 1-,3-6,9,10,12-30, and 62are rejected under 35 U.S.C. 102(b) as being anticipated by Okuya (JP 2002-75953), as presented in the IDS mailed 2/6/2007).

Okuya teaches a substrate processor and substrate processing method.

Regarding claim 1: A substrate processing apparatus that removes an unwanted material on a surface of a peripheral portion of a substrate through etching by supplying etching liquid to the surface of the peripheral portion, the apparatus comprising:

an etching liquid supplying mechanism (nozzles 41,42) that supplies the etching liquid to the peripheral portion of the substrate; and an annular member (liquid receiver 62) that has an inner periphery on or inside an outer periphery of the substrate and thereby defines a processing width to be processed by the etching liquid on the surface of the peripheral portion of the substrate, see Fig.1. The substrate processing apparatus according to claim 1wherein: the annular member 62 is placed in close proximity to the surface of the peripheral portion of the

substrate while securing a certain gap such that allows the annular member to come in contact with a liquid film of the etching liquid formed on the surface of the peripheral portion , see Fig. 1 of Okuya It is further noted that the gap has been claimed relative to the substrate which is not part of the apparatus and thus the limitation is interpreted as a matter of an intended use. The annular member of Okuya that is shaped as a continuous ring in that encircles the wafer without disruption in structure from another member.

Regarding claim 3: The substrate processing apparatus according to Claim 1 further comprising: substrate holding mechanism (work holder 1) that holds the substrate from one surface side thereof, wherein the annular member 62 is placed on the other surface side of the substrate.

Regarding claim 4: The substrate processing apparatus according to Claim1, wherein: the etching liquid is supplied to the peripheral portion of the substrate from the etching liquid supplying mechanism while the substrate is held rest. The apparatus of Okuya is inherently capable of supplying etching liquid while the substrate is not rotating. This is also seen as a process limitation and is not given patentable weight.

Regarding claim 5: The substrate processing apparatus according to Claim 1, wherein the substrate W is a substrate of a nearly circular shape; the apparatus further comprises a substrate rotating mechanism that rotates the substrate; and the inner periphery of the annular member is of a circular shape having an inside diameter equal to smaller than a diameter of the substrate. See Fig. 1 of Okuya.

Regarding claim 6: The substrate processing apparatus according to Claim 5, wherein: the etching liquid is supplied to the peripheral portion of the substrate from the etching liquid supplying mechanism while the substrate rotated by the substrate rotating.

Regarding claims 9, 12, and 24 see the incline shapes in Figs. 1 and 3.

Regarding claim 10: Note that the substrate is not part of the apparatus and that the limitation is relative to the substrate, this claim is interpreted as a matter of an intended use.

Regarding claims 13-16: see Figs.

Regarding claim 17: Claim 1, wherein: the etching liquid supplying mechanism includes a nozzle (nozzles 12a-d and nozzles 13a-d) that supplies the etching liquid toward a surface of the substrate on an opposite side to a surface containing the surface of the peripheral portion.

Regarding claim 18: The substrate processing the nozzle supplies the etching liquid toward a central portion of the surface on the opposite side, (nozzles 41, 42, and nozzle on end of line 33)

Regarding claim 19: The substrate processing apparatus according claim 1, wherein: the annular member has an outer wall surface positioned inside the outer periphery of the substrate, see Figs.

Regarding claims 20 and 21: See nozzles 41, 42, and the one of line 33.

Regarding claim 22: The substrate processing claim 1, wherein: apparatus according to the etching liquid supplying mechanism includes a dispense port (nozzles are provided to supply fluid from in a direction perpendicular to the direction of the substrate see Fig.1 nozzles through which the etching liquid is dispensed direction perpendicular to a surface of the substrate direction inclined toward an outside of the substrate.

Regarding claim 23: The substrate processing claim 1, wherein: apparatus according the annular member (62) includes an inner wall surface that in a direction to go away from rises from the inner periphery surface of the substrate, see Figs.

Regarding claim 25: The substrate processing apparatus according to claim 1, further comprising a lid member (shut off plate 2) that substantially clogs an internal space of the annular member.

Regarding claim 26: See recovery groove 52.

Regarding claims 27-29: The substrate processing apparatus according to claim 1, further comprising: a gas supplying mechanism that supplies an internal space the annular member with a fluid, see Fig. 1 and the type of fluid provided is interpreted as a matter of an intended use.

Regarding claim 30: The substrate processing apparatus according to claim 1 further comprising: a protection liquid etching protection liquid (nozzle 41) provided water) toward a center of the substrate an inner side of the annular member, supplying mechanism that supplies etching protection liquid toward a center a center of the substrate at an inner side of the annular member, see Fig. 1.

Regarding claims 10, 62: The inner periphery is disposed inside the outer periphery of the substrate see the location of the annular member 62 relative to the substrate W. Herein the term "associated with" is interpreted as “is near the periphery”.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-Th during the hours of 8 a.m. and 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 27, 2009 /Sylvia R MacArthur/

Primary Examiner, Art Unit 1792